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P-13

July 12, 1961

Dear Ed:

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The suggestion in _______ letter (30 June 1961, File 2.3.1.2) is interesting, since the continuous belt evoids the intermittent sampling problem associated with the old driftsight. Whether this will be very accurate depends on two factors: (1) The degree of match which is possible due to fore-aft angular distortion in the driftsight optics; and (2) the time which the operator can spend making accurate fixes.

If a driftsight scheme can be considered, it might work as follows. Assuming the driver is capable of setting the device to about 3-5% accuracy, our gear would light an indicator whenever it was operating uncaged and read more than 5% different from the driftsight V/h. The operator would check that this driftsight setting was as good as he could do, and this would then run the system until the sensor again took over. The operator would only have to set the driftsight whenever the indicator came on, or whenever he felt cloudcover or other special conditions made him more able to set in V/h. (These special conditions would have to be determined by later experience.)

Since the "standby" V/h is a feature we require but have not yet frozen in our V/h sensor, we would like to pursue this further. Furthermore, the same sensor will be used in ELG's system, and, perhaps, you'll find it valuable for ______ or other systems also. Therefore, I'd appreciate it if you would let us know about: (1) The optical distortion; and (2) available operator time.

A third point to consider is whether the new driftsight can be modified (by us, by you, by the manufacturer?), in terms of space availability. I assume it is a reimaging system and has an accessible intermediate focus, but this should be checked, if possible.

I plan to take two weeks vacation 17-28 July, and would appreciate it if we could discuss this when I return. Jules will be in the plant while I'm away, in case there are any questions.

Best regards.

Milt

cc: WHI

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EPK

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